

In the Claims:

Please amend claim 16 as follows:

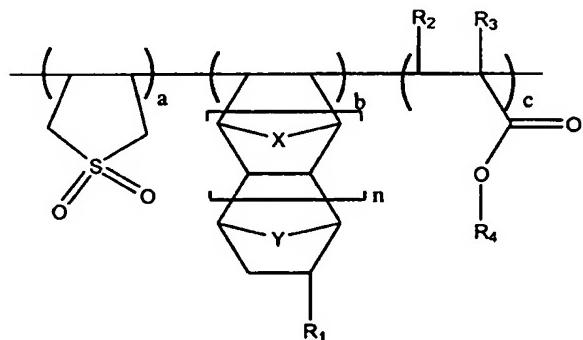
Please add claims 30-35 as follows:

Claims 1-15 (canceled)

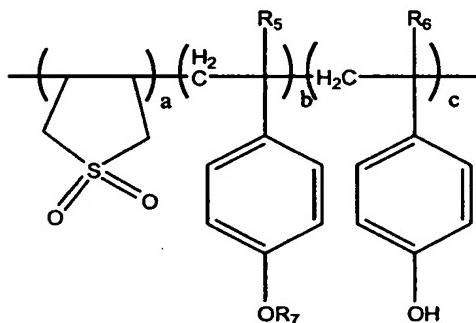
Claim 16 (previously presented) A photoresist composition comprising:

(i) a photoresist polymer comprising a repeating unit selected from the group consisting of Formulas 2 and 3:

Formula 2



Formula 3



wherein R₁ is selected from the group consisting of H, halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group (-O-), (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group, and -COOR';

R₂, R₃, R₅ and R₆ are individually selected from the group consisting of H, halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group, and (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group;

R' R₁, R₄ and R₇ are individually acid labile protecting groups;

X and Y are individually selected from the group consisting of (C₁-C₁₀) alkylene, O and S;

n is 0 or 1; and

the ratio a : b : c falls within the ranges 1-50mol% : 0-50mol% : 0-80mol%, wherein at least one of b and c must be present;

- (ii) an organic solvent; and
- (iii) a photoacid generator.

Claim 17 (original) The photoresist composition according to claim 16, wherein the photoacid generator is selected from the group consisting of phthalimidotrifluoromethane sulfonate, dinitrobenzyltosylate, n-decyl disulfone and naphthylimido trifluoromethane sulfonate.

Claim 18 (original) The photoresist composition according to claim 17, wherein the photoacid generator further comprises a compound selected from the group consisting of diphenyl iodide hexafluorophosphate, diphenyl iodide hexafluoroarsenate, diphenyl iodide hexafluoroantimonate, diphenyl p-methoxyphenylsulfonium triflate, diphenyl p-toluenylsulfonium triflate, diphenyl p-isobutylphenylsulfonium triflate, diphenyl p-tert-butylphenylsulfonium triflate, triphenylsulfonium hexafluorophosphate, triphenylsulfonium hexafluoroarsenate, triphenylsulfonium hexafluoroantimonate, triphenylsulfonium triflate, dibutylnaphthylsulfonium triflate and mixtures thereof.

Claim 19 (original) The photoresist composition according to claim 16, wherein the photoacid generator is present in an amount ranging from about 0.05 to about 10% by weight of the photoresist polymer.

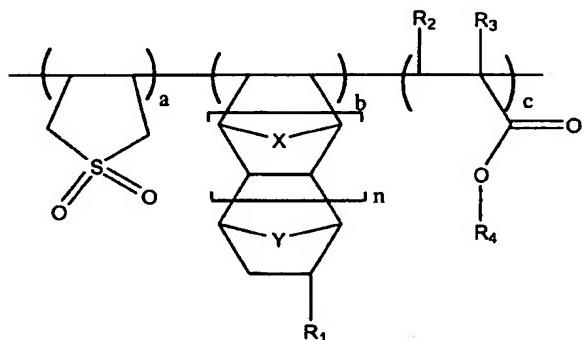
Claim 20 (original) The photoresist composition according to claim 16, wherein the organic solvent is selected from the group consisting of methyl 3-methoxypropionate, ethyl 3-ethoxypropionate, propylene glycol methyl ether acetate, cyclohexanone, 2-heptanone, ethyl lactate and mixtures thereof.

Claim 21 (original) The photoresist composition according to claim 16, wherein the organic solvent is present in an amount ranging from about 500 to about 2000% by weight of the photoresist polymer.

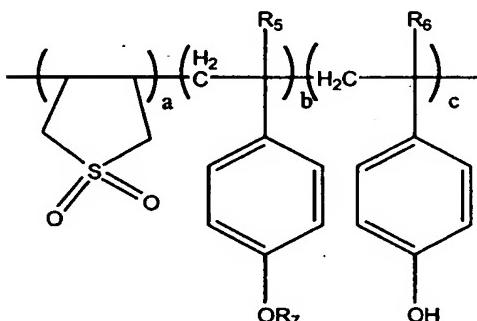
Claims 22-29 (canceled)

Claim 30 (New) A photoresist polymer comprising a repeating unit selected from the group consisting of Formula 2 and Formula 3:

Formula 2



Formula 3



wherein R₁ is selected from the group consisting of H, halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group (-O-), (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group, and -COOR';

R₂, R₃, R₅ and R₆ are individually selected from the group consisting of H, halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group, and (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group;

R₁, R₄ and R₇ are individually acid labile protecting groups;

X and Y are individually selected from the group consisting of (C₁-C₁₀) alkylene, O and S;

n is 0 or 1; and

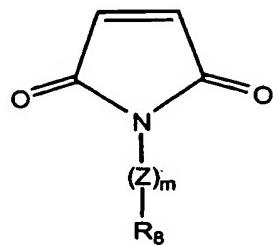
the ratio a : b : c falls within the ranges 1-50mol% : 0-50mol% : 0-80mol%, wherein at least one of b and c must be present.

Claim 31 (New) The photoresist polymer according to claim 30, wherein the repeating unit comprises one or more of substituent(s) which are selected from the group consisting of halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group, and (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group.

Claim 32 (New) The photoresist polymer according to claim 30, wherein the acid labile protecting group is selected from the group consisting of 2-methyl 2-adamantyl, hexafluoro isopropyl, 8-ethyl 8-tricyclodecanyl, tert-butyl, tetrahydropyran-2-yl, 2-methyl tetrahydropyran-2-yl, tetrahydrofuran-2-yl, 2-methyl tetrahydrofuran-2-yl, 1-methoxypropyl, 1-methoxy-1-methylethyl, 1-ethoxypropyl, 1-ethoxy-1-methylethyl, 1-methoxyethyl, 1-ethoxyethyl, tert-butoxyethyl, 1-isobutoxyethyl and 2-acetylmenth-1-yl.

Claim 33 (New) The photoresist polymer according to claim 30, wherein the repeating unit further comprises a monomer of Formula 4.

Formula 4



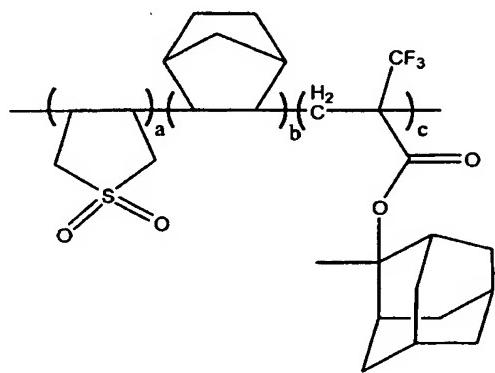
wherein, R₈ is selected from the group consisting of H, halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group, and (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group;

Z is O or S; and

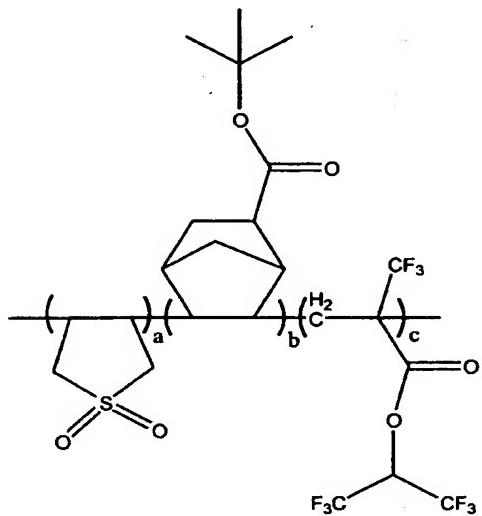
m is 0 or 1.

Claim 34 (New) The photoresist polymer according to claim 30, wherein the repeating unit is represented by Formulas 2a to 2d or Formula 3a:

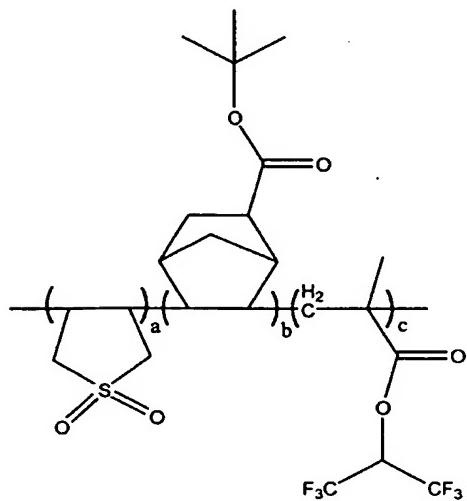
Formula 2a



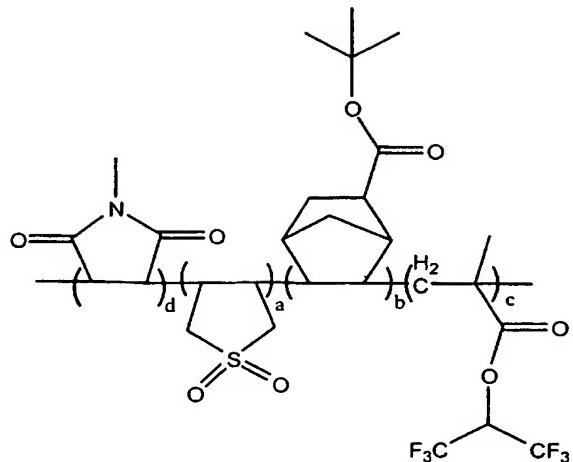
Formula 2b



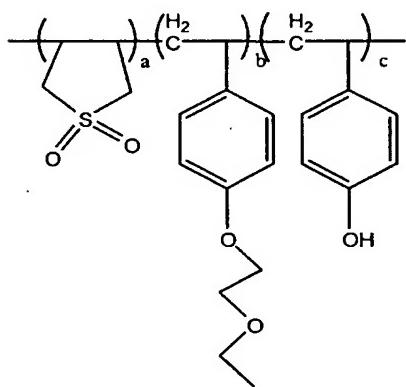
Formula 2c



Formula 2d

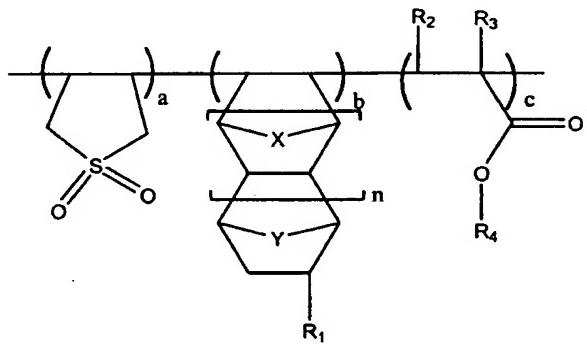


Formula 3a

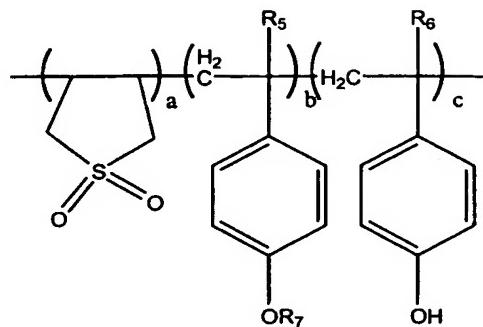


Claim 35 (New) A photoresist polymer comprising a repeating unit selected from the group consisting of Formula 2 and Formula 3:

Formula 2



Formula 3



wherein R₁ is selected from the group consisting of H, halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group (-O-), (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group, and -COOR';

R₂, R₃, R₅ and R₆ are individually selected from the group consisting of H, halogen, (C₁-C₂₀) alkyl, (C₁-C₂₀) alkyl with halogen substituent(s), (C₁-C₂₀) alkyl containing an ether group, and (C₁-C₂₀) alkyl with halogen substituent(s) and containing an ether group;

R₁, R₄ and R₇ are individually acid labile protecting groups;

X and Y are individually selected from the group consisting of (C₁-C₁₀) alkylene, O and S;

n is 0 or 1; and

the ratio a : b : c falls within the ranges 1-50mol% present in an amount up to and including 50mol%: present in an amount up to and including 80mol%.